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Times are from day of broadcast

Adult Immunization Update

Satellite Broadcast

June 26, 2003

Program Rundown and Script

FINAL ON-AIR VERSION

1.	1 11:30:00 25:00 BARS & TONE MASTER CONTROL	
2.	2 11:55:00 9:50 PRE-CONFERENCE GRAPHICS, PHTN AND PROGRAM OPENING, ORENSTEIN INTRO DIS VT-A, CUT 1 SOT	OC: ". . .will enable us to make even further progress."
3.	3 12:04:50 2:00 OPENING CAM	
4.	CAM	GOOD: Welcome to Adult Immunization Update! We're coming to you live from the Centers for Disease Control and Prevention in Atlanta, Georgia.
5.	CG, CYNTHIA GOOD, MODERATOR	I'm Cynthia Good, and I'll be the moderator for this program. We are pleased that you could be with us today. [PAUSE]
6.		The purpose of this broadcast is to provide an update on adult immunization recommendations and practices since our last adult broadcast in 1998. In this program, you will learn about the most recent adult immunization recommendations from the Advisory Committee on Immunization Practices and about recent initiatives to improve adult immunization coverage rates.
7.		I'd like to introduce our course instructors.
8.	CAM CG Donna Weaver, RN, MN, Nurse Educator, National Immunization Program	Donna Weaver is a nurse educator in the National Immunization Program at CDC. Ms. Weaver has a Masters degree in nursing, and has been working in immunization programs since 1996.
9.	CAM CG William Atkinson, MD, MPH, Medical Epidemiologist, National Immunization Program	Our second instructor is Dr. William Atkinson. Dr. Atkinson is a medical epidemiologist with the National Immunization Program. He has been with the National Immunization Program since 1989. [PAUSE]

10.	CAM	During this program we will be referring to a number of resources related to adult immunizations. [SI]
11.	SS , RECOMMENDED ADULT SCHEDULE AD HOUSE03 P1	The most important resource will be the Recommended Adult Immunization Schedule, which was published in October, 2002 and will provide the framework for today's content. If you don't already have a copy, we will provide you with a resource webpage at the end of this program. [SO]
12.	CAM	Now let's look at the objectives of this program. After today's program, we hope you will be able to do these things and much more: [SI]
13.	SS , SUMMARIZE AD HOUSE03 P2	**Summarize the morbidity and mortality of vaccine-preventable diseases among adults** in the United States. [PAUSE] **Describe vaccines routinely recommended for adults.** [PAUSE] **List two strategies to increase adult immunization coverage levels** and **identify two immunization initiatives that target specific adult populations.** [BIG PAUSE] [SO]
14.	4 12:06:50 4:20 REGISTRATION AND HOUSEKEEPING	
15.	CAM DELETE SEGMENT 4 FROM VT	GOOD: Before we get started, we need to take care of a few operational details for the program.
16.		This is the fifth National Immunization Program satellite broadcast for 2003. Your response to these broadcasts has been very positive, so we will continue to provide them to meet your training needs. [PAUSE]
17.		We would like to thank all the states who are participating today, especially the state coordinators and local site facilitators who made this program possible. We could not provide these programs without your continued enthusiastic support.

18.		We want to welcome those of you participating through the Health and Sciences Television Network and the Long Term Care Network. You, and most participants in Hawaii, are viewing a tape rebroadcast of the program.
19.		We also want to welcome those of you joining us today through our live Internet webcast. This program will be archived for online viewing following today's live broadcast. The Public Health Training Network is committed to making live webcast and online archives available for all of our satellite broadcasts. [SI]
20.	SS , TECHNICAL AD HOUSE03 P3	If you are having technical trouble receiving our signal, you can call us here at CDC, toll free at **800-728-8232**. If you are viewing the program from outside the United States, the technical number is **404-639-1289**. [SO]
21.	CAM	You can receive continuing education credit for participating in this program. We are pleased to be able to offer pharmacy continuing education credit for this program through our collaboration with the American Pharmacists Association. If you wish to receive CME, CNE, CEU, CECH for health educators, or pharmacy credits you must register and complete a course evaluation. For those who do not wish to receive CE credit, a certificate of attendance will be awarded to participants who register and complete the course evaluation.
22.		We will give you more details about the registration process and the online system at the end of the broadcast. [SI]
23.	SS , VERIFICATION CODE HOUSE03 P4	**In order to access the evaluation and receive CE credit, you must enter a special code - called a verification code- that is specific to this broadcast**. This code helps assure that people who apply for CE credit actually watched the program. Pharmacists will also need this code to apply for CE credit through the American Pharmacists Association. We will tell you the verification code at the end of the broadcast. [SO] [PAUSE]

24.	CAM	We will have about 20 minutes for questions and answers at the end of the program, and we'll put some of your questions on the air for Dr. Atkinson and Ms. Weaver to answer. We will be taking your questions by phone, fax, TTY, and Email. We would like to give you the phone numbers now, so please jot them down. [SI]
25.	SS , VOICE AD HOUSE03 P5	For regular voice calls, the number is **800-793-8598.** If you are an international viewer, you can call **404-639-0180** [SC]
26.	SS , FAX AD HOUSE03 P6	You can fax your questions to us at **800-553-6323.** For those of you outside the United States, the FAX number is **404-639-0181.** [SC]
27.	SS , TTY AD HOUSE03 P7	Our TTY number is **800-815-8152.** The international TTY number is **404-639-0182.** [SC]
28.	SS , EMAIL AD HOUSE03 P8	Finally, if you would like to Email your question to us, the address is **n-i-p info at c-d-c dot g-o-v.** Please type "broadcast question" in the subject line of the Email. Otherwise we will not be able to identify it as a question related to this program. [SO] [BIG PAUSE].
29.	CAM ROLLCUE PICKUP HERE FOR VT	Our program will begin with a discussion of the adult immunization schedule.
30.	5 12:11:10 0:20 ADULT IMMUNIZATION SCHEDULE TITLE BUMP DIS VT-A, CUT 2 SOT	OC: TITLE AND MUSIC
31.	6 12:11:30 3:45 RECOMMENDED ADULT SCHEDULE	

32.	CAM CG ATKINSON	ATKINSON: Many vaccines are recommended for adults. Some of these vaccines, such as tetanus and diphtheria toxoids and influenza vaccine, are recommended for many or all adults. Some vaccines are recommended only for adults with certain underlying medical conditions, or those whose occupation or lifestyle place them at increased risk for exposure. Examples of these vaccines are pneumococcal polysaccharide, hepatitis B, and MMR. Adults who travel outside the United States may need specific vaccines such as typhoid and yellow fever.
33.		Until recently, keeping current on vaccine recommendations for adults was a challenge. The Advisory Committee on Immunization Practices, or ACIP, didn't publish an adult vaccination schedule, and the routine childhood schedule only included persons through 18 years of age.
34.		Keeping up to date with adult immunization recommendations recently became a lot easier. In October 2002, ACIP published for the first time a comprehensive vaccination schedule for adults. [SI]
35.	SS , RECOMMENDED ADULT SCHEDULE ADULT03 LIVE P1	The Recommended Adult Immunization Schedule is based on published recommendations of ACIP, the American Academy of Family Physicians, and the American Academy of Obstetrics and Gynecology. [SC]
36.	SS , SCHEDULE WITH AGE COLUMNS ADULT03 LIVE P2	The first page of the schedule presents a summary of vaccine recommendations in a format similar to the childhood and adolescent schedule. Vaccines are listed in horizontal rows, and three age groups are indicated in columns. Vaccine indications are color coded. Those shown in yellow are recommended for everyone in the respective age group. Vaccines that should be administered if they were not administered in childhood are indicated in green crosshatch. Vaccines recommended if the person has a specific medical or exposure indication are coded in red crosshatch. [SC]

37.	SS , SECOND PAGE ADULT03 LIVE P3	The second page of the schedule provides guidance for vaccination of adults with certain medical conditions, regardless of age. The conditions are listed in rows, and include pregnancy, chronic illnesses such as diabetes, heart and lung disease, immunodeficiency, renal failure, asplenia and HIV infection. The vaccines are listed in columns. Like the first page, vaccines are color coded to indicate which vaccines are indicated or contraindicated. [SC]
38.	SS , FOOTNOTES ADULT03 LIVE P4	As with all ACIP vaccination schedules, there are footnotes. These footnotes provide clarification for the recommendations on the grids. We strongly recommend that you familiarize yourself with the footnotes as well as the recommendations on the grids. [SO]
39.	CAM	The current schedule is for 2002- 2003. A revised schedule for 2003- 2004 is now being prepared. Publication is anticipated the second week of October, 2003, to coincide with National Adult Immunization Awareness week. All clinicians who vaccinate adults should have a copy of this schedule in the office.
40.		If you don’t have a copy, you can get one from the National Immunization Program website. If you don’t have internet access we would be happy to mail you a copy. We will give you our contact information at the end of this program. [PAUSE]
41.	CAM	Let’s look at each of the vaccines on the schedule a little more closely, starting with the only vaccine that’s recommended for everyone - tetanus and diphtheria toxoids.
42.	7 12:15:15 0:15 TETANUS DIPHTHERIA TITLE BUMP DIS VT-A, CUT 3 SOT	OC: TETANUS AND DIPHTHERIA TITLE AND MUSIC
43.	8 12:15:30 6:04 TETANUS and DIPHTHERIA	

44.	CHANGE SPEAKERS CAM CG WEAVER	WEAVER: Tetanus and diphtheria are not common in the United States, but adults are the ones most commonly affected. Although rare now, these diseases could again become a problem if we let our guard down.
45.		Both tetanus and diphtheria are diseases caused by toxins produced by bacteria. Protection requires antibodies against these toxins. [SI]
46.	SS , TETANUS AND DIPHTHERIA ADULT03 LIVE P5	**More than fifty percent of all adults 20 years of age and older** in the U.S. do not have protective levels of antibodies against tetanus and diphtheria toxins. Many adults 60 years of age and older **have not received a primary series of tetanus and diphtheria containing vaccine** and many adults of all ages **do not receive routine Td booster** doses every ten years. [SO]
47.	CAM	In recent years, about 40 cases of tetanus have occurred each year in the U.S. Most cases occurred following an acute injury, such as a puncture or laceration. More than half of these injuries were minor cuts and scrapes that occurred in and around the house, or during common activities such as gardening or camping. Some cases of tetanus occurred in people with chronic wounds, like decubitus ulcers, or without an identifiable wound at all. Almost all of these cases could have been prevented by vaccine. [PAUSE]
48.		Diphtheria, which is spread from person-to-person, can also be fatal if left untreated. The incidence of diphtheria is very low in this country. Fewer than 6 cases of diphtheria have been reported each year in the U.S. since 1980. Only 26 cases were reported from 1990 through 2001, and most cases- more than half- occurred among adults.
49.		The lack of cases, however, does not mean the organism is gone. The organism is probably still circulating in some areas of the United States and diphtheria is still common in many countries outside the United States. [PAUSE]

50.		Combination tetanus and diphtheria toxoid consists of formalin inactivated toxins. A full series of TD induces protective antibody in nearly everyone and the duration of protection following a complete series is at least ten years.
51.		Tetanus toxoid should always be administered with diphtheria toxoid, as TD for people seven years of age and older. Single antigen tetanus toxoid IS available, but does not offer protection against diphtheria, so it's use is not recommended. Monovalent tetanus toxoid should only be used when there is a medical contraindication to the diphtheria component. Monovalent diphtheria toxoid is not available. [SI]
52.	SS , ROUTINE TD SCHEDULE ADULT03 LIVE P7	The primary series consists of 3 doses of adult Td, with the **first two doses separated by at least four weeks, and the third dose given at six to twelve months after the second. A booster dose should be routinely administered every ten years thereafter**. [SO]
53.	CAM	Only DOCUMENTED doses of Td, or any other vaccine, should be counted. Many adults do not know their immunization history. If you encounter a patient with no documented history of tetanus and diphtheria immunizations, give the person a dose of Td and then attempt to locate a record. If a record cannot be located, then the remaining doses should be given to complete the series. [PAUSE]
54.		Adverse reactions following Td are not common. [SI]
55.	SS , ADVERSE REACTIONS ADULT03 LIVE P8	As with other inactivated vaccines, the most common adverse reactions following Td are **local reactions**, including redness, tenderness and induration at the site of injection.
56.		Exaggerated local reactions, or so-called **hypersensitivity reactions**, are occasionally reported following a tetanus vaccination. These unusual reactions, known as **Arthus type** reactions, typically present as extensive painful swelling, often extending from the shoulder to the elbow.

57.		Persons experiencing these severe reactions usually have very high serum tetanus antitoxin levels. These reactions are NOT contraindications for further doses, but do not give these persons routine or emergency booster doses of Td more frequently than every ten years.
58.		**Systemic symptoms**, such as fever, are **not common** following Td, and **severe reactions** are **rare**. Allergic reactions are also rare. [SO] [PAUSE]
59.	CAM	Both tetanus and diphtheria toxoids are inactivated, so they have few true contraindications or precautions. [SI]
60.	SS , CONTRAINDICATIONS AND PRECAUTIONS ADULT03 LIVE P9	As with other inactivated vaccines, the only contraindication to Td is a **severe allergic reaction to a vaccine component or following a prior dose. Moderate or severe acute illness** is a precaution, and vaccination should be deferred until the acute condition improves. [SO]
61.	CAM	You may have encountered older individuals who claim to be allergic to tetanus shots. Many of them describe severe reactions to something they were given for tetanus years ago.
62.		The allergic reactions these people had may have actually been serum sickness, a reaction to equine antitoxin. Equine antitoxin was the only product available for the prevention of tetanus prior to the mid 1940s. It was used for post exposure prophylaxis until the late 1950s, when tetanus immune globulin was introduced. Tetanus toxoid has never contained any horse protein.
63.		If you come across someone with a history like this, don't just write it off as allergy to tetanus toxoid. Try to find out when it happened, the nature of the reaction, and the circumstances. If the reaction seems to be truly anaphylactic, you should strongly consider referring your client to an allergist for evaluation. No one should be allowed to walk around susceptible to tetanus. That can be a fatal error.

64.	9 12:21:39 0:50 OLD PSA AND INFLUENZA BUMP DIS VT-A, CUT 4 SOT	OC: INFLUENZA TITLE AND MUSIC
65.	10 12:23:25 3:27 INFLUENZA 1	
66.	CHANGE SPEAKERS CAM	ATKINSON: The next two vaccine preventable diseases we are going to discuss are influenza and pneumococcal disease.
67.		Influenza and pneumococcal disease are the most common causes of vaccine preventable death in the United States. New estimates are that influenza alone kills an average of 36 thousand Americans every year. 90 per cent of these deaths occur among adults 65 years of age and older. In addition, about thirty four hundred adults 65 and older die from pneumococcal disease each year – mainly from bacteremia, meningitis, and pneumonia.
68.		The number of deaths and cost to society from these diseases are likely to increase as the nation's population ages. The U.S. Census Bureau projects that the number of adults 65 and older will double during the next 30 years.
69.		New estimates also indicate adults 85 and older may be 32 times more likely to die of influenza complications than people 65 to 69 years of age. The Census Bureau reports that the number of persons 85 and older doubled between 1976 and 1999. Immunizations can reduce the risk of getting influenza AND the severity of illness, while saving money for society. [PAUSE]
70.		Let's look at influenza vaccine and recommendations for vaccination. In order to understand influenza vaccine, it is helpful to know a little about influenza virus.
71.		There are two major types of influenza virus – A and B. Type A causes moderate to severe illness in all age groups. Type B generally causes milder epidemics and primarily affects children. [SI]

72.	SS , INFLUENZA VIRUS SCHEMATIC ADULT03 LIVE P10	Two antigens on the surface of influenza virus – hemagglutinin and neuraminidase help the virus infect cells in the respiratory tract. Antibodies against these antigens result in immunity to infection. But these antigens change with time. These changes allow the virus to evade our immune response to prior influenza infection. The result is that we can experience repeated infections with influenza viruses during our lifetime. [SC]
73.	SS , ANTIGENIC DRIFT AND SHIFT ADULT03 LIVE P11	There are basically two types of antigenic changes that influenza viruses undergo, drift and shift. Antigenic **drift is a relatively minor change within the subtype**. Antigenic drift may be **associated with epidemics**, depending on how different the new virus is from the prior virus. Drift occurs continually from year to year, or even within the same year.
74.		Antigenic **shift is a major change that creates a new subtype**. This new subtype usually replaces its predecessor. This type of change is **associated with pandemics**, or world wide epidemics, because the entire population of the world is susceptible to this new virus. [SO]
75.	CAM	Antigenic shift doesn't happen frequently, but when it does, hundreds of thousands, or millions, of deaths may result. In the last century, five antigenic shifts occurred, every ten to thirty years. The last major shift was in 1968, more than 30 years ago.
76.		There is no question that influenza virus will shift again. The question is WHEN the shift will occur. We hope that by developing a pandemic preparedness plan we will be ready for the next shift. [PAUSE]
77.		Because influenza viruses change continually, and sometimes change radically, we may experience influenza illness more than once, and the vaccine components may need to be changed annually.
78.		Fortunately, only a few strains of virus circulate at any given time. For the last twenty years, only two type A's and one type B have circulated concurrently. That makes vaccine production a little easier. Donna?

79.	11 12:26:52 6:23 INFLUENZA 2	
80.	CHANGE SPEAKERS CAM	WEAVER: Thanks, Bill. Influenza vaccine has been available in the United States for more than 50 years. Until 2003, all influenza vaccine available in the U.S. was inactivated vaccine. Although a live attenuated influenza vaccine will be available beginning in the 2003- 2004 influenza season, we will still rely heavily on inactivated vaccine. We will comment on live attenuated influenza vaccine in a moment. [SI]
81.	SS , INACTIVATED INFLUENZA VACCINE ADULT03 LIVE P12	Inactivated influenza vaccines available in the United States contain only fragments of influenza virus. These vaccines are known as split virus or **subvirion** vaccines. The vaccine is **trivalent** – it contains 3 different viruses, two type A's and one type B. The viruses contained in the vaccine are chosen each spring, based on surveillance of currently circulating strains.
82.		The **duration of immunity** from influenza vaccine is considered to be **one year** or less. Vaccine **efficacy varies** depending on two factors: the recipient's age and health status and the similarity of the vaccine viruses to the circulating viruses. [SC]
83.	SS , INFLUENZA VACCINE EFFICACY ADULT03 LIVE P13	If there is a good match between vaccine and circulating strains, the vaccine is **seventy to ninety percent effective** in preventing clinical illness among healthy persons less than sixty five years of age. However, it's only **thirty to forty percent effective** in preventing illness among persons sixty five years of age and older who have underlying medical conditions.
84.		The REAL value of influenza vaccine is that it significantly decreases **complications and death** from influenza among those who get the disease. [SC]
85.	SS , INFLUENZA and COMPLICATIONS ADULT03 LIVE P14	Here's a graph that shows the percent of **nursing home residents** who were hospitalized, developed pneumonia, or died, during an influenza outbreak. The green bars represent VACCINATED residents and the tan bars represent the UNVACCINATED residents.

86.		Unvaccinated residents were twice as likely to be **hospitalized**, more than twice as likely to develop **pneumonia**, and more than four times as likely to **die** as vaccinated residents. [SO]
87.	CAM	That's a major take away message for influenza vaccine. It doesn't prevent ILLNESS as well as we would like, but vaccinated people have milder illness and significantly fewer complications. [PAUSE]
88.		In June 2003 the Food and Drug Administration approved this country's first live attenuated influenza vaccine. [SI]
89.	SS , LIVE ATTENUATED INFLUENZA VACCINE ADULT03 LIVE P	The vaccine is called **FluMist**. It's **administered by nasal spray** rather than by injection. FluMist is likely to be available for the 2003- 2004 influenza season. However, it is **approved for use only among HEALTHY persons 5 through 49 years of age**. It is NOT approved for persons 50 and older, or for people with medical conditions that place them at high risk of complications from influenza. [SO]
90.	CAM	ACIP has not yet published recommendations on the use of FluMist. So we will not discuss FluMist further in this program. However, we will discuss this new vaccine at length in our August Immunization Update satellite broadcast. By that time we expect to have ACIP recommendations available for the vaccine.
91.		So who should be getting inactivated influenza vaccine? The basic strategy is to protect the people at high risk of complications by inducing active immunity in them AND in the people who come into close contact with them. [PAUSE]
92.		And who are the people at high risk of influenza related complications? The risk factors are age, certain chronic illnesses, pregnancy, and chronic aspirin use in children. [SI]

93.	SS , INFLUENZA VACCINE RECOMMENDATIONS – ALL PERSONS ADULT03 LIVE P15	An annual influenza vaccination is recommended for: all **persons fifty years of age or older; residents of long-term care facilities** housing persons with chronic medical conditions; persons who have **long-term health problems,** such as heart or lung disease, kidney disease, metabolic diseases like diabetes, asthma, or anemia and other blood disorders; **persons with a weakened immune system** due to HIV, AIDS, other diseases that affect the immune system, long-term treatment with drugs such as steroids, or cancer treatment with radiation or drugs. [SC]
94.	SS , INFLUENZA VACCINE RECOMMENDATIONS – PEOPLE 6 MONTHS ADULT03 LIVE P16	People **6 months to 18 years of age on long term aspirin therapy** because of the risk for Reye syndrome if they are infected with influenza; **pregnant women who will be past the third month of pregnancy during influenza season.** The influenza season is usually November through March, but can be longer. **Health care workers, family members, or anyone else who comes in close contact with persons at risk** of influenza complications. [SC]
95.	SS , INFLUENZA VACCINE ENCOURAGED – HEALTHY CHILDREN ADULT03 LIVE P17	An annual influenza vaccination should also be encouraged for the following groups: **healthy children six to twenty three months of age** and **household contacts and out-of-home caretakers of children two years of age and younger.** This is especially true if the child is less than six months of age since the child is too young to receive the vaccine. **People who provide essential community services,** such as law enforcement, fire fighters, and other first responders. [SC]
96.	SS , INFLUENZA VACCINE CONSIDERED – FOREIGN TRAVELERS ADULT03 LIVE P18	**Foreign travelers,** especially those who travel to the Southern hemisphere between April and September and those who travel to the tropics or with organized groups at any time. **People who live in dormitories or any type of crowded condition.** And, finally, **ANYONE who wants to reduce their risk of infection with influenza virus** should be vaccinated. [SO]

97.	CAM READY TO CHANGE SPEAKERS	One of the most common concerns we hear about influenza vaccine is fear of side effects. Bill, would you talk about adverse reactions to influenza vaccine?
98.	12 12:33:15 4:52 INFLUENZA 3	
99.	CHANGE SPEAKERS CAM	ATKINSON: Yes, I will. Thanks, Donna. The influenza vaccine you will be using most frequently is an inactivated vaccine. Its adverse reaction profile is like that of other inactivated vaccines. [SI]
100	SS , INFLUENZA VACCINE ADVERSE REACTIONS ADULT03 LIVE P19	As you would expect from any inactivated vaccine, the most common adverse reactions are **local reactions**. In recent studies, from 15 to 20 percent of recipients report local reactions, like pain at the injection site.
101		These studies also show that systemic reactions, such as **fever and malaise** are not common, and occur mostly in persons who have had no exposure to the influenza virus antigens in the vaccine, particularly young children. Severe **allergic reactions** are rare, and are most likely related to residual egg protein when they do occur. Good screening can essentially eliminate the risk of allergic reactions in influenza vaccine recipients.
102		**Neurological reactions**, specifically Guillain Barre syndrome, are very rare. GBS has not been clearly associated with influenza vaccine since the swine flu vaccine in 1976. [SO]
103	CAM	Most influenza vaccine you will use is inactivated so it cannot cause influenza. However, it is possible to get influenza AFTER vaccination. It takes a week or two to develop a good immune response to the vaccine. But since the incubation period of influenza is only three days, you could get influenza if you were exposed shortly after being vaccinated, before the vaccine has had a chance to work. [PAUSE]
104		Contraindications and precautions to influenza vaccine are the same as most other inactivated vaccines. [SI]

105	SS , INFLUENZA VACCINE CONTRAINDICATIONS ADULT03 LIVE P20	A history of a **severe allergic reaction** to a vaccine component or following a prior dose of vaccine is the only contraindication. Needless to say, people with anaphylactic egg allergy should not receive influenza vaccine. **Moderate or severe acute illness** is a precaution, and vaccination should be deferred until the acute illness has improved. [SO]
106	CAM	Pregnancy is not a contraindication to influenza vaccine nor is immunosuppression. In fact, pregnant women and immunocompromised people, including those with HIV infection, SHOULD be vaccinated.
107		A frequent question is whether a history of Guillain Barre Syndrome is a contraindication to influenza vaccine. Guillian Barre syndrome, or GBS, is not an automatic contraindication for influenza vaccination. The association between influenza vaccine and GBS is discussed in detail in the influenza ACIP statement.
108		You should be familiar with it. The bottom line is that in most cases the benefit of influenza vaccine outweighs the risk of a second occurrence of GBS in people at high risk of complications from influenza. [PAUSE]
109		A few final notes on influenza vaccine. [SI]
110	SS , INFLUENZA VACCINE 2003-2004 ADULT03 LIVE P21	The 2003- 2004 influenza vaccine formulation includes: A/New Caledonia/20/99, the H1N1 strain, A/Panama/2007/99, the H3N2 strain, and B/Hong Kong/330/2001. If these strains seem familiar to you, it’s because they are the same strains that were in the 2002- 2003 formulation. [SO]
111	CAM	The FDA does not recommend the use of any vaccine beyond its expiration date. ALL of the 2002- 2003 influenza vaccine expires on June 30, 2003 and should NOT be used after that date. You should NEVER administer expired vaccine. Also, even though this year’s strains are the same as last year’s strains, you still need to receive your annual dose this fall.

112		Health care providers who have not yet placed influenza vaccine orders should do so as soon as possible. This will assure that you get all the vaccine you need for your practice, and receive at least part of your supply early in the season.
113		And, finally, good news. Medicare's 2003 vaccine administration rate allowance has increased by 94 percent since 2002 for an average of 7 dollars and 72 cents. The rates range from 5 dollars and 34 cents to 10 dollars and 98 cents depending on geographic location.
114	13 12:38:07 0:15 PNEUMOCOCCAL BUMP DIS VT-A, CUT 5 SOT	OC: PNEUMOCOCCAL TITLE AND MUSIC
115	14 12:38:22 3:28 PNEUMOCOCCAL 1	
116	CHANGE SPEAKERS CAM	WEAVER: We're going to turn our attention now to pneumococcal polysaccharide vaccine and recommendations for its use.
117		Estimates of the incidence of pneumococcal disease have been made from a variety of population based studies. More than 45 thousand cases and more than six thousand deaths from invasive pneumococcal disease are estimated to occur annually in the United States. And more than half of these cases occur in adults who have an indication for pneumococcal polysaccharide vaccine.
118		We know that after age 54, the incidence of pneumococcal disease rises steadily with increasing age. And we also know that drug resistant strains of pneumococcus are becoming more common, and are a serious problem in some areas. In some parts of the country, as many as thirty percent of pneumococcal isolates are resistant to penicillin. Obviously, this is a disease worth preventing. [SI]

119	SS , PNEUMOCOCCAL POLYSACCHARIDE VACCINE – PURIFIED CAPSULAR POLYSACCHARIDE ADULT03 LIVE P22	The first twenty three valent polysaccharide vaccine was licensed in 1983. The vaccine contains **purified capsular polysaccharide antigen from twenty three types of pneumococcus.** These twenty three serotypes **account for 88 percent of bacteremic pneumococcal disease,** and **cross react with types causing an additional eight percent of disease.** [SC]
120	SS , PNEUMOCOCCAL POLYSACCHARID VACCINE – EFFICACY ADULT03 LIVE P23	The efficacy of pneumococcal vaccine has been estimated at **sixty to seventy percent against invasive disease,** but appears to vary to some extent with underlying disease. Protection is less for persons with chronic illness, and against pneumococcal pneumonia.
121		The **duration of immunity** is thought to be **at least five years.** The **schedule is one dose,** with **selective revaccination** at least five years after the first dose. [SO]
122	CAM	Pneumococcal vaccine may – and should – be given at the same visit as other vaccines an adult may need, such as influenza, Td and hepatitis B vaccines. Pneumococcal vaccine should be given in a separate syringe at a separate site than other vaccines. [PAUSE]
123		Millions of Americans are eligible for pneumococcal polysaccharide vaccine. [SI]
124	SS , PNEUMOCOCCAL POLYSACCHARIDE VACCINE RECOMMENDATIONS – 65 YEARS ADULT03 LIVE P24	Pneumococcal polysaccharide vaccine should be administered routinely to **all adults sixty five years of age and older.** The vaccine is recommended for **adults of any age with normal immune systems who have chronic illnesses,** such as cardiovascular disease, pulmonary disease, diabetes, alcoholism, cirrhosis, and cerebrospinal fluid leaks. The vaccine is also recommended for persons with cochlear implants. [SC]
125	SS , PNEUMOCOCCAL POLYSACCHARIDE VACCINE RECOMMENDATIONS – IMMUNOCOMPROMISE ADULT03 LIVE P25	The vaccine is recommended for **people who are immunocompromised** as a result of disease, drugs such as chemotherapy or steroids, or HIV infection. Persons who do not have a functional **spleen** or no spleen are at very high risk of pneumococcal bacteremia and should be vaccinated.

126		Finally, pneumococcal vaccine should be considered for persons living in special **environments or social settings with an identified increased risk**, such as certain Native American populations. [SO]
127	CAM READY TO CHANGE SPEAKERS	The most common question we receive about pneumococcal vaccine concerns revaccination. Bill, would you discuss who should receive a booster dose of pneumococcal vaccine?
128	15 12:41:50 3:18 PNEUMOCOCCAL 2	
129	CHANGE SPEAKERS CAM	ATKINSON: Yes, Donna, I will. Not everyone who receives pneumococcal vaccine needs a second, or booster, dose. The basic problem is that booster doses do not boost. There is little evidence that more than one dose protects any better than just one.
130		However, a single revaccination dose is recommended for some people, namely persons at highest risk of serious pneumococcal infection, and those who are likely to have a rapid decline in pneumococcal antibody levels. [SI]
131	SS , CANDIDATES FOR REVACCINATION – ASPLENIA ADULT03 LIVE P26	This would include people with **functional or anatomic asplenia**, and persons who are **immunocompromised, from disease, drugs, or because of HIV**. Persons with **chronic renal failure** should also receive a one-time revaccination, as well as persons with **nephrotic syndrome** because they may have a rapid decline in antibody levels. Persons 65 years of age and older should get a single revaccination IF they received their **first dose before age 65 AND it has been 5 or more years since the first dose.** Adults who receive two doses prior to age 65 do not need a third. [SC]
132	SS , PNEUMOCOCCAL POLYSACCHARIDE VACCINE CANDIDATES FOR REVACCINATION - ≥65 YEARS OF AGE ADULT03 LIVE P27	Persons who receive their **first dose at 65** years of age or older are candidates for revaccination if **they later develop a condition for which revaccination is recommended AND it has been at least 5 years since their first dose.** [SO]

133	CAM	Persons 65 years of age and older whose vaccination status is unknown should be given one dose of vaccine. [PAUSE]
134		Remember, revaccination is a one time event and this single revaccination should be given five years after the first dose. [PAUSE] You don't have to memorize this. I know it can seem complicated, but the Immunization Action Coalition has developed a handy fact sheet. [SI]
135	SS , PPV FACT SHEET ADULT03 LIVE P	It's titled "Pneumococcal Vaccine – Who needs it and who needs it again". We will tell you how to get it on our broadcast resource web page. [SO]
136	CAM	Adverse reactions following pneumococcal vaccine are similar to other inactivated vaccines. [SI]
137	SS , PNEUMOCOCCAL POLYSACCHARIDE VACCINE ADVERSE REACTIONS ADULT03 LIVE P28	Local reactions after either the first or second dose are reported in 30 to 50 percent of recipients. Systemic complaints like **fever and myalgias** are not common and **severe reactions** rare. [SC]
138	SS , PNEUMOCOCCAL POLYSACCHARIDE VACCINE CONTRAINDICATIONS AND PRECAUTIONS ADULT03 LIVE P29	Contraindications to pneumococcal vaccine are the same as with other inactivated vaccines. A history of a **severe allergic reaction to a vaccine component or following a prior dose** is a contraindication. **Moderate or severe acute illness** is a precaution, and vaccination should be delayed until the acute illness has improved. [SO]
139	CAM	Influenza and pneumococcal vaccines are not fully utilized in the United States. Coverage levels are lowest among African Americans and Hispanics. CDC is collaborating with several agencies to address these disparities. Here's Tami Kicera with the National Immunization Program to explain these initiatives.
	16 12:45:08 12:25 READII PACKAGE; HEPATITIS A TITLE DIS VT-A, CUT 6 SOT	OC: HEPATITIS A TITLE AND MUSIC

140	17 12:57:33 2:27 HEPATITIS A 1	
141	CHANGE SPEAKERS CAM	WEAVER: Hepatitis A vaccine is NOT one of the routinely recommended vaccines for all adults, but it is on the adult schedule to be considered in certain situations. So we will discuss it briefly. [SI]
142	SS , HEPATITIS A ADULT03 LIVE2 P2	Hepatitis A is a viral infection acquired by **fecal oral transmission. Viral replication occurs in the liver**. The **incubation period of hepatitis A ranges from fifteen to fifty days**, with an **average of about twenty eight days**. [SO]
143	CAM	The signs and symptoms are not always obvious and they are indistinguishable from other types of Hepatitis. Symptomatic infection occurs most often in older children and adults.
144		The typical clinical picture is an abrupt onset of fever, malaise, anorexia, nausea, abdominal discomfort, dark urine and jaundice. Clinical illness usually lasts less than two months, but can last as long as six months.
145		Hepatitis A is a common infection. The highest incidence is among children less than 15 years of age who are often the source of infection for older children and adults.
146		Unlike hepatitis B virus, infection with hepatitis A virus does not lead to chronic infection. So complications of hepatitis A are related to the acute disease. Ten to twenty percent of people with symptomatic hepatitis A require hospitalization.
147		The overall case fatality rate is about zero point three percent, one in three hundred and thirty REPORTED cases. But the fatality rate may be as high as two percent among people forty years of age and older. Death is caused by fulminant hepatitis and liver failure. [SI]

148	SS , SOURCES OF HEPATITIS A INFECTION ADULT03 LIVE2 P3	The most frequently reported source of hepatitis A infection in the U.S. is household or sexual contact with a person with hepatitis A. This source accounted for about a quarter of reported cases. Day care attendance or employment accounts for about fifteen percent of cases and about five percent have a history of recent international travel.
149		About three percent of cases are associated with a suspected food or waterborne outbreak, but about half of persons with hepatitis A do not have an identified source of their infection. [SO] [PAUSE]
150	CAM	Bill, what about hepatitis A vaccine?
151	18 1:00:00 6:35 HEPATITIS A 2	
152	CHANGE SPEAKERS CAM	ATKINSON: Donna, hepatitis A vaccine is a relative newcomer in the United States. The first vaccine was licensed for use in 1995. [SI]
153	SS , HEPATITIS A VACCINE ADULT03 LIVE2 P4	Two **inactivated whole virus** vaccines are available. HAVRIX is Glaxo Smith Kline's vaccine. VAQTA is made by the Merck Vaccine Division. The vaccines are considered equivalent and interchangeable.
154		Both vaccines are given as a **two dose series – a primary dose followed by a booster 6 to 18 months** later. Both vaccines are available in **pediatric and adult formulations**. The **adult formulations are for persons 19 years of age and older**. [SO]
155	CAM	Hepatitis A vaccines are highly immunogenic, and large trials have produced estimates of 94 to 100 percent protection against clinical hepatitis. 95 percent of adults will develop protective antibody within a month following one dose, and 100 percent will have protective antibody after two doses.
156		The minimum interval between the first and booster dose of hepatitis A vaccine is six calendar months. If the interval is longer than the recommended 6 to 18 months, it's not necessary to repeat the first dose.

157		Hepatitis A vaccine is also available in a combination vaccine. [SI]
158	SS , TWINRIX ADULT03 LIVE2 P5	**Twinrix** is produced by Glaxo Smith Kline, and was approved by FDA in 2001. It contains a **standard adult dose of Glaxo Smith Kline's hepatitis B vaccine**, Engerix, and a **pediatric dose of their hepatitis A vaccine**, Havrix. The vaccine is administered in a **three dose series at zero, one, and 6 to 12 months**. Twinrix is **approved for adults 18 years of age and older**. [SO]
159	CAM	Schedules using combinations of Twinrix and single antigen hepatitis A vaccine have not been studied. We suggest that you try to complete the schedule with the same vaccine that was used for the first dose or doses.
160		ACIP recommends hepatitis A vaccination for adults at increased risk of hepatitis A virus infection. [SI]
161	SS , HEPATITIS A VACCINE RECOMMENDATIONS ADULT03 LIVE2 P6	The traditional high risk groups targeted for hepatitis A vaccination include **international travelers, men who have sex with men, persons who use illegal drugs, and persons with occupational risk for HAV infection**. This group is limited to certain laboratory workers and animal handlers, and does NOT include health care workers, or people with occupational exposure to sewage.
162		Vaccination is also recommended for **persons with chronic liver disease including hepatitis C.** In the absence of other risk factors, persons with chronic liver disease are not at increased risk of HAV infection, but are at increased risk of complications of hepatitis A. [SO]
163	CAM	Hepatitis A vaccine should be administered to people traveling to countries with high or intermediate risk of hepatitis A virus infection. These areas include basically the entire world except Canada, Western Europe, Scandinavia, Japan, New Zealand, and Australia.

164		It is assumed that vaccinated persons are protected by four weeks after receiving the first dose, although the second dose six to eighteen months later is still recommended for long term protection.
165		Available data suggest that 40 to 45 percent of vaccinated people may lack neutralizing antibody at fourteen days after receiving the first dose. No data are currently available regarding the risk of hepatitis A among persons vaccinated two to four weeks before departure.
166		Protection following hepatitis A vaccine might not be complete until four weeks after vaccination. So ACIP recommends that immune globulin be administered to people traveling to a high or intermediate risk area less than four weeks after the first dose of vaccine. IG should be administered as a separate injection at a different anatomic site. [SI]
167	SS , HEPATITIS A VACCINE ADVERSE REACTIONS ADULT03 LIVE2 P8	For both hepatitis A vaccines, the most commonly reported adverse reaction following vaccination is a local reaction at the site of injection. **Injection site pain**, erythema, or swelling is reported in **20 to 50 percent** of recipients. These symptoms are generally mild and self limited. Mild **systemic reactions**, such as malaise, fatigue, and low grade fever are **reported in less than 10 percent of recipients. No serious adverse reactions have been reported.** [SC]
168	SS , HEPATITIS A VACCINE CONTRAINDICATIONS AND PRECAUTIONS ADULT03 LIVE2 P9	Hepatitis A vaccine should not be administered to persons with a history of a **severe allergic reaction to a vaccine component or following a prior dose.** Vaccination of persons with **moderate or severe acute illnesses** should be deferred until the patient has improved. [SO]

169	CAM	The safety of hepatitis A vaccination during pregnancy has not been determined. However, because it is an inactivated vaccine, the theoretical risk to the fetus is low. The risk associated with vaccination should be weighed against the risk for HAV infection. Because hepatitis A vaccine is inactivated, no special precautions are needed when vaccinating immunocompromised persons. [PAUSE]
170		Routine hepatitis A vaccination of children is preventing a substantial number of HAV infections. Vaccination of children also eliminates a major SOURCE of infection for other children and adults- the groups that tend to get more severe disease.
171	CHANGE SPEAKERS CAM	GOOD: Bill, we frequently hear about hepatitis A outbreaks traced to an infected food handler. Are there any recommendations for vaccination of this group?
172	CHANGE SPEAKERS CAM	ATKINSON: You're right, Cynthia. Foodborne outbreaks of hepatitis A do make the news often. ACIP does not recommend ROUTINE hepatitis A vaccination of food handlers. But the ACIP recommendations give a lot of leeway to state and local public health authorities to institute vaccination of food handlers, based on local circumstances.
173		In fact, several counties have already mandated vaccination of food handlers to try to reduce the risk of food borne outbreaks. So far, we have no data regarding the impact of this measure. [PAUSE]
174	19 1:06:35 0:15 HEPATITIS B BUMP DIS VT-A, CUT 7 SOT	OC: HEPATITIS B TITLE AND MUSIC
175	20 1:06:50 7:20 HEPATITIS B 1	

176	CHANGE SPEAKERS CAM	WEAVER: Our next topic is Hepatitis B disease, which is caused by the Hepatitis B virus, or HBV. Hepatitis B remains a major public health problem in the United States, even though a safe and effective vaccine has been available for twenty years. Hepatitis B vaccine is also the single most frequent topic of questions we receive. [SI] [PAUSE]
177	SS , HEPATITIS B VIRUS INFECTION ADULT03 LIVE2 P10	HBV is the most common cause of chronic viremia known, with an estimated **two hundred to three hundred million chronic carriers worldwide.**
178		The virus is an **established cause of chronic hepatitis and cirrhosis.** HBV is a human carcinogen, estimated to be the cause of up to **eighty percent of hepatocellular carcinomas**, or liver cancer. Only tobacco is a more frequent cause of cancer than hepatitis B virus. [SO]
179	CAM	A person can die from either an acute or chronic infection with HBV, but most of the mortality results from long term carriage of the virus. Unfortunately, short of a major breakthrough in the treatment of chronic HBV infection, the number of annual deaths will not change very much in the near future.
180		This is because it usually takes twenty years or more of chronic infection to result in end stage liver disease. So even if transmission of hepatitis B virus were completely stopped today, deaths from chronic infection would continue to occur for many years to come. [PAUSE]
181		In the last five years, an average of nine thousand NEW cases of hepatitis B infection have been reported each year. But these REPORTED cases only represent a fraction of the actual incidence.
182		It is estimated that in the pre-vaccine era, two hundred to three hundred THOUSAND people were infected annually with hepatitis B virus. [SI]

183	SS , HBV DISEASE BURDEN IN THE UNITED STATES ADULT03 LIVE2 P12	Because of vaccination, and risk reduction behaviors in high risk groups, the number of people newly infected in the United States has declined to an estimated **78 thousand per year.** More than 80 percent of these new infections are among adults.
184		But there are estimated to be **one point two five million persons chronically infected** with HBV in the U.S. An additional **five to eight thousand persons will become new carriers each year.**
185		An estimated **four to five thousand deaths from HBV induced liver cancer and cirrhosis occur each year** in the United States. HBV is the third most common cause of death among vaccine preventable diseases in the United States, after influenza and pneumococcal disease. [SO]
186	CAM	Risk factors for infection with HBV have not changed very much in the last twenty years. In the 1980s, sexual contact accounted for more than half of cases, and injection drug use accounted for about fifteen percent. [SI]
187	SS . RISK FACTORS FOR HEPATITIS B ADULT03 LIVE2 P13	This graphic shows the distribution of risk factors in 2001. Persons with **multiple sexual contacts**, **men who have sex with men**, and **sexual contact** with a person known to have HBV infection account for fifty-four percent of cases with a known risk factor.
188		**Injection drug use** accounts for twenty percent of cases. About three percent of cases are in people who have **household contact** with a person with acute or chronic hepatitis B.
189		Not surprisingly, the risk of HBV infection increases the longer you are in a risk group. So often, by the time a person is identified as being at risk, they are already infected. [SO] [PAUSE]

190	CAM	In the early 1980s, health care workers accounted for two percent of HBV infections- two or three thousand new infections each year. Since that time, the rate of infection among health care workers has declined by ninety five percent, and is now lower than the rate for the general population. Hepatitis B vaccine has made occupational HBV infection a thing of the past. [PAUSE] [SO]
191		The first Hepatitis B vaccine was licensed in 1981. The Hepatitis B surface antigen in the vaccine was derived from the blood of infected people. The two vaccines that are now available in the U.S. came on the market beginning in 1986. [SI]
192	SS , HEPATITIS B VACCINE ADULT03 LIVE2 P14	They both are **composed of recombinant Hepatitis B surface antigen**. Vaccine **efficacy** after a **full series of three doses** has been estimated at **95 percent, with a range of 80 to 100 percent**. The **duration of immunity is long, 15 years or more. Routine booster doses are not recommended.** [SO]
193	CAM	Hepatitis B vaccine can and should be administered simultaneously with all other vaccines. For adults it should be administered intramuscularly in the deltoid. No vaccine, including this one, should be administered in the gluteus. [SI]
194	SS , HEPATITIS B VACCINE ADULT FORMULATIONS ADULT03 LIVE2 P14	The hepatitis B vaccines available in the U.S. are produced by two different manufacturers- Merck and Glaxo Smith Kline. Both companies produce an adult formulation. The **adult formulation** of Merck's **Recombivax HB contains ten micrograms per milliliter**. Merck also produces a **dialysis formulation with forty micrograms per milliliter.**
195		The adult formulation of Glaxo Smith Kline's **Engerix-B, contains twenty micrograms per milliliter. Adults, and by adult we mean anyone 20 years of age or older, should receive one milliliter of Recombivax formulation or the adult formulation of Engerix.** [SO]

196	CAM	The adult formulation of Engerix has twice as much antigen per dose as Recombivax. But the vaccines are considered to be equivalent and are interchangeable. An adult who begins the series with Recombivax can complete it with Engerix-B, or vice versa.
197		One word of caution- do not be fooled by the higher antigen content of Engerix. The fact that it has twice the antigen per dose does not mean that it is a better vaccine, or that you can give a half dose if you substitute Engerix for Recombivax. [SI]
198	SS , HEPATITIS B VACCINE ADULT SCHEDULE ADULT03 LIVE2 P15	A complete series of Hepatitis B vaccine is three doses. **The first 2 doses should be separated by at least one month. The third dose is usually given 4 to 6 months after the second, but the minimum interval is two months if an accelerated schedule is required. The third dose should be separated from the first dose by at least 4 months.** [PAUSE] [SO]
199	CAM	Hepatitis B vaccine is also available in a combination with hepatitis A vaccine, as Twinrix. We discussed the use of this vaccine in the hepatitis A segment of the program. [PAUSE]
200	READY TO CHANGE SPEAKERS	One of the most common questions we receive about hepatitis B vaccine is whether vaccine doses spaced longer than the recommended intervals need to be repeated? Bill, could you talk about this?
201	21 1:17:00 5:23 HEPATITIS B 2	
202	CHANGE SPEAKERS CAM	ATKINSON: Donna, as with all vaccines used routinely in the U.S., it is NOT necessary to restart the series or add additional doses if the interval between doses is prolonged. Just continue the series where it was interrupted.
203		The reason it’s not necessary to restart the series, or to add doses, is because of immunologic memory. This is also the reason that booster doses are not recommended. [SI]

204	SS , HEPATITIS B VACCINE LONG-TERM EFFICACY ADULT03 LIVE2 P18	Persons who respond to the vaccine develop **immunologic memory following vaccination.** This means that B lymphocytes have developed that are ready to produce more antibody the next time hepatitis B surface antigen is encountered. Antibody may drop to a low level but re-exposure to HBV leads to an **anamnestic**, or memory response, and the antibody level increases very quickly.
205		Since the incubation period of HBV is long – it can be up to 6 months- the immune system can mount a protective response before the virus can do any damage. Asymptomatic HBV infection has been occasionally documented in persons who responded to the vaccine. But **chronic infection rarely occurs among vaccine responders**. Since chronic infection leads to severe sequelae, and causes most of the mortality, it is what we most want to prevent. [SC]
206	SS , HEPATITIS B VACCINE BOOSTER DOSES ADULT03 LIVE2 P19	**Booster doses of hepatitis B vaccine are NOT recommended routinely** for any group, because there is no evidence that they are necessary for continued protection. [SO]
207	CAM	The duration of Hepatitis B immunity following vaccination will continue to be studied for years to come, particularly among those vaccinated as infants. If breakthrough infections, particularly chronic infections, begin to appear ten or 20 or 30 years from now, booster doses may be needed. But not now.
208		Hepatitis B vaccine is recommended for adults at increased risk of HBV infection. [SI]
209	SS , HEPATITIS B VACCINE ADULT CANDIDATES MEN WHO HAVE SEX ADULT03 LIVE2 P20	Adults who are at increased risk of HBV infection include **men who have sex with other men, heterosexuals with multiple sexual partners, persons diagnosed with a recently acquired sexually transmitted disease, and commercial sex workers.** [SC]
210	SS , HEPATITIS B VACCINE ADULT CANDIDATES INJECTION DRUG USERS ADULT03 LIVE2 P21	**Injection drug users** who share needles are at extremely high risk for HBV infection. All injection drug users who are susceptible to HBV should be vaccinated as soon as possible after their drug use begins.

211		**Male prison inmates** are at increased risk of HBV infection because of injection drug use, homosexual activity, or other factors. The prison setting provides an access point for vaccination of inmates with a history of high-risk behavior.
212		**Persons receiving hemodialysis** are at increased risk of HBV infection because of contact with large amounts of blood. Although hepatitis B vaccine is less effective in these patients, it is recommended for all susceptible hemodialysis patients.
213		The risk of **health care workers** contracting HBV infection depends on how often they are exposed to blood or blood products through percutaneous and mucosal exposures. Any health care or public safety worker may be at risk for HBV exposure, depending on the tasks they perform.
214		If the tasks involve contact with blood or blood-contaminated body fluids, then these workers should be vaccinated. [SC]
215	SS , HEPATITIS B VACCINE OTHER ADULT CANDIDATES STAFF AND CLIENTS ADULT03 LIVE2 P22	Other adult candidates for hepatitis B vaccine include: **staff and clients in institutions for the developmentally disabled; Alaskan natives, Pacific Islanders, and immigrants and refugees from hepatitis B endemic areas; household members of adoptees and others who come from hepatitis B endemic areas; [SC]**
216	SS , HEPATITIS B VACCINE HOUSEHOLD MEMBER AND SEXUAL PARTNERS ADULT03 LIVE2 P23	**household members and sexual partners of HBV carriers; persons with extended travel- 6 months or more- to HBV endemic areas; and, recipients of certain blood products, like hemophiliacs who receive blood clotting factor.** [SC]
217	SS , POST-VACCINATION SEROLOGIC TESTING NOT ROUTINELY RECOMMENDED ADULT03 LIVE2 P24	A complete series of three doses of Hepatitis B vaccine is highly effective in producing immunity. As a result, **post vaccination serologic testing is NOT recommended routinely after vaccination of most adults. Post-vaccination serologic testing IS recommended for adults who are on dialysis**, or who are **immunodeficient**, and for certain **health-care workers.** [SC]

218	SS , POST-VACCINATION SEROLOGIC TESTING HEALTH-CARE WORKERS ADULT03 LIVE2 P25	ACIP recommends that **health-care workers who have contact with patients or blood and are at ongoing risk for injuries with sharp instruments or needles should be tested for antibody after vaccination.** [SO]
219	CAM	Routine testing is NOT recommended for persons at low risk of exposure, such as public safety workers and health care workers without direct patient contact. Testing for antibody to hepatitis B surface antigen should be done one to two months after the third dose of vaccine. Donna, what about adverse reactions?
220	22 1:19:33 3:07 HEPATITIS B 3	
221	CHANGE SPEAKERS CAM	WEAVER: Bill, hepatitis B vaccine is inactivated, and adverse reactions following vaccination are similar to other inactivated vaccines. [SI]
222	SS , ADVERSE REACTIONS ADULT03 LIVE2 P26	**Adverse reactions** following hepatitis B vaccine are mostly local. Local reactions, such as **pain at the injection site**, are reported in thirteen to twenty nine percent of recipients. **Mild systemic complaints**, such as fatigue or headache are reported in eleven **to seventeen percent** of adults. **Temperature of more than 37.7 degrees centigrade** - which is very low grade fever - occurs in only about one percent. **Severe systemic reactions** are rare. [SO]
223	CAM	There's been a lot of publicity in the last year or two about an association between hepatitis B vaccine and multiple sclerosis. Two recent studies examined this hypothesis. These studies found no association between either onset or relapse of multiple sclerosis. These studies and related material on this topic are available on the National Immunization Program website. [PAUSE]
224	SS , CONTRAINDICATIONS AND PRECAUTIONS ADULT03 LIVE2 P27	The contraindications and precautions for hepatitis B vaccine are similar to those of other inactivated vaccines. [SI]

225		The only contraindication is **a severe allergic reaction to a vaccine component or following a prior dose. Moderate or severe acute illness** is a precaution. Vaccination should be deferred until the acute illness improves. [SO]
226	CAM	We are frequently asked if an allergy to thimerosal is a contraindication to hepatitis B vaccine since the adult formulations do contain thimerosal.
227		Allergy to thimerosal is a contraindication to hepatitis B vaccine only if the allergy is severe. Thimerosal is a mercurial preservative used in some vaccines and medications. Most people who claim to be allergic to thimerosal have had a reaction to an ophthalmic solution, like contact lens cleaner.
228		These reactions are usually local, not anaphylactic. But if the person had an anaphylactic reaction to a product containing thimerosal, you need to be extremely cautious in giving hepatitis B or any other vaccine that contains thimerosal. Depending on the person's risk of hepatitis B virus infection, vaccination could still be considered, but would need to be done by someone capable of managing an acute allergic reaction. [PAUSE]
229		Now before leaving the topic of hepatitis B, we would like to emphasize that THE most effective strategy to increase vaccine coverage is to identify settings where high risk persons can be routinely vaccinated. Efforts are now being made to vaccinate people in clinics that treat sexually transmitted diseases, offer family planning or drug treatment services, and in detention centers.
230		We asked Dr. Harold Margolis, Director of the CDC Division of Viral Hepatitis to tell you more about these efforts.
231	23 1:22:40 11:07 MARGOLIS PACKAGE VT-A, Cut 8 SOT	OC: MMR TITLE AND MUSIC

232	24 1:33:47 7:45 MEASLES, MUMPS, AND RUBELLA	
233	CAM	ATKINSON: Now we're going to discuss two live vaccines that are recommended for many adults. Let's start with measles, mumps, and rubella, or MMR.
234		Although these three viral illnesses have not been common in the last few years, adults account for a substantial number of the remaining cases. Since 1990, persons 15 years of age and older have accounted for 30 to 40 percent of mumps cases annually. In 2000, adults 20 years of age and older accounted for 34 percent of all measles cases and 87 percent of all reported rubella cases.
235		Rubella is a particular problem for persons coming from other countries, notably Latin America. Rubella vaccine is not used routinely in much of Latin America, and many other parts of the world. [SI]
236	SS , MEASLES, MUMPS, RUBELLA VACCINE ADULT03 LIVE3 P1	MMR contains **live attenuated viruses**. The vaccine is highly effective, and more than **95 percent of recipients** respond to a single dose and develop **lifelong immunity** to all three viruses. All persons **born after 1956 should have documentation of one dose** of MMR vaccine given after their first birthday, or some other evidence of immunity, like a serologic test. [SC]
237	SS , HIGH RISK ADULTS ADULT03 LIVE3 P2	Some adults are at much higher risk of exposure to measles than the average adult, and should receive two doses of MMR. Adults at higher risk of exposure include **college students**, **international** travelers, and **health care workers**. College students who live in dormitories are at particularly high risk. International travelers are at increased risk if they visit areas where measles is more prevalent than it is here. [SO]

238	CAM	College students and international travelers should receive TWO doses of measles- containing vaccine if they do not have other evidence of measles immunity. The second dose is NOT a booster dose. It is INSURANCE, to give recipients another chance to develop immunity if they did not respond to the first dose. [PAUSE]
239		Health care workers should also receive two doses of MMR, or have other evidence of immunity, because they are at particularly high risk of measles exposure. [PAUSE]
240		ACIP recommends that MMR be used whenever one or more of the individual components are needed. So here is the adverse reaction profile for combination MMR. [SI]
241	SS , ADVERSE REACTIONS FEVER AND RASH ADULT03 LIVE3 P3	**Fever and rash** occur in 5 to 15 percent of recipients. Both of these reactions are usually caused by the measles component, but may be caused by rubella vaccine virus. **Joint symptoms**, such as pain and swelling, are associated with rubella vaccine. This occurs in up to 25 percent of susceptible women and less often in men.
242		**Thrombocytopenia**, or low platelet count, has occasionally been associated with measles vaccine, occurring in less than one in thirty thousand doses administered. **Parotitis** and **deafness** are rare reactions to mumps vaccine. Finally, **encephalopathy** is a very rare reaction to measles vaccine, occurring in less than one in one million doses administered. [SO]
243	CAM	So, the measles component of the vaccine is responsible for the most common adverse reactions following MMR. All of these adverse reactions occur one to two weeks after vaccination, which, of course, is the incubation period for the vaccine viruses. [PAUSE]
244		Since MMR is a live attenuated vaccine, it has a few more contraindications and precautions to vaccination than the inactivated vaccines we have discussed so far. [SI]

245	SS , CONTRAINDICATIONS AND PRECAUTIONS SEVERE ALLERGIC ADULT03 LIVE3 P4	As with all vaccines, a **severe allergic reaction** to a to vaccine component or following a prior dose is a contraindication to further doses. **Pregnancy** is a contraindication to MMR because of the theoretical risk of damage to a developing fetus. The vaccine viruses are NOT transmitted to household contacts, so pregnancy of a household contact is NOT a contraindication to vaccination. **Immunosuppression** - which we use synonymously with immunodeficiency and immunocompromised - is also a contraindication to MMR. [SO]
246	CAM	MMR should NOT be given to people taking large daily doses of oral or parenteral corticosteroids for more than 2 weeks, or to people with cancer, or to people being treated for cancer. MMR should be delayed for at least a month after high dose steroids and at least 3 months after chemotherapy.
247		The viruses in MMR are not communicable, and there is no risk of transmission to a household contact. So MMR is NOT contraindicated for healthy household contacts of immunosuppressed persons. [SI]
248	SS , MEASLES VACCINE AND HIV INFECTION ADULT03 LIVE3 P5	Measles can be lethal to a person with HIV infection. So **MMR continues to be recommended for people with HIV infection,** but **NOT for people with evidence of SEVERE immunosuppression from HIV**. Severe immunosuppression is defined by low CD4 T lymphocyte counts or by the percentage of total lymphocytes.
249		There is more information about lymphocyte count criteria for severe immunosuppression in the MMR ACIP statement. **Prevaccination HIV testing of an otherwise healthy person is NOT recommended**. [SC]
250	SS . CONTRAINDICATIONS AND PRECAUTIONS MODERATE OR SEVERE ACUTE ADULT03 LIVE3 P6	There are two precautions for MMR. **Moderate or severe acute illness** is a precaution as it is for all vaccines, and vaccination should be delayed until the acute illness has improved. **Recent receipt of a blood product** is a precaution because of the potential inactivation of the vaccine viruses due to the antibodies in the blood product. [SO]

251	CAM	The vaccine and antibody table in the ACIP MMR statement, and in the ACIP General Recommendations on Immunization should be your guide for timing of blood products and MMR.
252	CHANGE SPEAKERS GOOD	GOOD: Bill, one of the most common questions we receive about rubella vaccine and MMR is whether a woman of childbearing age should be tested for pregnancy before vaccination. What should clinicians do in this situation?
253	CHANGE SPEAKERS ATKINSON	ATKINSON: We do get that question a lot so let's briefly review the recommended procedure for screening and vaccinating a woman of child-bearing age. Neither MMR or rubella vaccine has been shown to injure a fetus. But because fetal injury from rubella vaccine virus is theoretically possible, you should never administer MMR to a woman who is or may be pregnant. [SI]
254	SS , MMR/RUBELLA VACCINATION OF CHILDBEARING-AGE WOMEN ADULT03 LIVE3 P7	ACIP recommends that you **ask if the woman is pregnant or likely to become pregnant in the next 4 weeks**. It might be good to ask what form of contraception is being used, because some women who are sexually active and not using contraception may STILL tell you they could not become pregnant.
255		**Exclude women** who may become pregnant in the next 4 weeks. For those women who are not excluded by these questions, **explain the theoretical risks** of vaccination during pregnancy, and the importance of not becoming pregnant during the month following vaccination. Then **vaccinate** them. [SO]
256	CAM	ACIP does NOT recommend routine pregnancy testing of women before rubella or MMR vaccination. [PAUSE]
257	25 1:41:32 0:15 VARICELLA BUMP VT-A, Cut 9 SOT	OC: VARICELLA TITLE AND MUSIC
258	26 1:41:47 7:16 VARICELLA	

259	CHANGE SPEAKERS WEAVER	WEAVER: The next vaccine recommended for some adults is varicella vaccine. Almost everyone is infected with varicella during childhood, so it is unusual in adults. But when adults do get varicella or chickenpox, it can be bad, and when it's bad, it's horrid.
260		Adults are often infected by their unvaccinated children. Adults are twenty-five times more likely than children to die from varicella. Although adults make up only about seven percent of varicella cases, they account for half of all varicella deaths. Of the eleven reported varicella related deaths in 2002, seven were adults. [SI]
261	SS , VARICELLA VACCINE ADULT03 LIVE3 P8	Varicella vaccine is a **live virus vaccine**. It contains the **Oka Merck strain** of vaccine virus, named for the Japanese child from whom the virus was isolated, and the company that developed the U.S. vaccine. Vaccine **efficacy** has been estimated at up to 90 percent against infection, and **95 percent against severe disease**. Vaccine efficacy estimated in clinical trials has been verified in investigations of varicella outbreaks.
262		We know that the **duration of immunity** is **at least seven to ten years**, because that is how long the cohorts have been followed. Immunity is probably long lasting in the majority of vaccinees. **Persons thirteen years of age and older should receive two doses separated by four to eight weeks.** [SO]
263	CAM	All susceptible adults should be vaccinated with varicella vaccine. Adults with reliable personal histories of chickenpox can be assumed to be immune. Those without a reliable history can be considered to be susceptible, or they may be tested to determine varicella immunity. Epidemiologic and serologic studies indicate that more than ninety percent of adults are immune to varicella, including those who do not recall having had chickenpox.

264		Assessment of varicella immunity and vaccination may be offered at the time of routine health care visits. However, specific assessment efforts should be focused on adults who are at highest risk of exposure, and those most likely to transmit varicella to others. [SI]
265	SS , VARICELLA VACCINE RECOMMENDATIONS FOR ADULTS SUSCEPTIBLE PERSONS AT HIGH RISK ADULT03 LIVE3 P9	Varicella vaccination should be considered for **susceptible persons who are at high risk of exposure to varicella, or at risk for severe illness** from varicella. This group includes persons who live or work in environments where there is a high likelihood of transmission of varicella, such as teachers **of young children; day care workers; residents and staff in institutional settings, colleges, correctional facilities, or military bases.** [SC]
266	SS , VARICELLA VACCINE RECOMMENDATIONS FOR ADULTS NONPREGNANT ADULT03 LIVE3 P10	This also includes **women of childbearing age who are not pregnant, and international travelers.** [SC]
267	SS , VARICELLA VACCINE RECOMMENDATIONS FOR ADULTS SUSCEPTIBLE PERSONS LIKELY ADULT03 LIVE3 P11	Varicella vaccination is also recommended for **susceptible adults who are likely to expose persons at high risk for severe illness.** This group would include **health care workers and susceptible family contacts of immunocompromised persons.** [SI]
268	SS , ADVERSE REACTIONS ADULT03 LIVE3 P12	Varicella vaccine is usually very well tolerated. Significant adverse reactions are not common. The most common adverse reactions following varicella vaccine are **local reactions such as pain, redness, and swelling.** Based on information from the manufacturer’s clinical trials of varicella vaccine, local reactions are reported by **twenty four percent** following the first dose and **thirty three percent** following the second dose. [PAUSE]
269		A generalized **varicella-like rash** is reported by **one percent** of adults after the second dose, with an **average of five lesions.** Most of these generalized rashes occur within three weeks and usually are maculopapular.

270		**Fever** within forty-two days of vaccination is reported by **ten percent** of adults. The majority of these episodes of fever have been attributed to intercurrent illness rather than to the vaccine. Other **systemic reactions** are not common. [SO]
271	CAM	Varicella vaccine is a live virus vaccine, and may result in a latent infection, similar to that caused by wild varicella virus. Consequently, zoster- or shingles-caused by the vaccine virus has been reported, but mostly among vaccinated children. Not all these cases have been confirmed as having been caused by vaccine virus. The risk of zoster following vaccination appears to be less than that following infection with wild type virus. The majority of cases of zoster following vaccine have been mild and have not been associated with complications, including post-herpetic neuralgia. [PAUSE]
272		The contraindications to varicella vaccine are almost identical to those for MMR -- because they are both live injected vaccines. [SI]
273	SS , CONTRAINDICATIONS AND PRECAUTIONS SEVERE ALLERGIC REACTION ADULT03 LIVE3 P13	As with all vaccines, a **severe allergic reaction** to a vaccine component or following a prior dose of vaccine is a contraindication to further doses. **Pregnancy** and **immunosuppression** are also contraindications to vaccination. [SO]
274		The effect of varicella vaccine on a fetus is unknown, but is probably minimal, since even wild varicella poses only a small risk. ACIP and AAP recommend that women be advised to avoid pregnancy for one month after receiving varicella vaccine, even though the package insert suggests three months.
275		Since it’s licensure in 1995, varicella vaccine, like other live virus vaccines, has been contraindicated in persons with significant immunodeficiency from any cause. [SI]

276	SS , USE IN IMMUNOCOMPROMISED ADULTS ADULT03 LIVE3 P14	As a result, **most immunocompromised persons should not be vaccinated.** But available data indicate that varicella vaccine is both **effective and safe in persons with isolated humoral immunodeficiency.** This includes persons with h**ypogammaglobulinemia** and **other selective B cell immune deficiencies.** [SC]
277	SS , CONTRAINDICATIONS AND PRECAUTIONS MODERATE OR SEVERE ACUTE ADULT03 LIVE3 P15	M**oderate or severe acute illness** is a precaution. Vaccination should be deferred until the acute illness has resolved. Finally, **recent receipt of a blood product** could interfere with viral replication, so vaccination should be delayed at least five months following administration of blood, immune globulin, or other blood products. [SO]
278	CAM ROLLCUE	One final note on varicella vaccine – ACIP does not recommend serologic testing after vaccination. Most commercial tests are not sensitive enough to detect antibody produced by vaccine. You should accept two documented doses of varicella vaccine as de facto evidence of immunity.
279	27 1:49:03 0:15 MENINGOCOCCAL BUMP VT-A, Cut 10 SOT	OC: MENINGOCOCCAL DISEASE TITLE AND MUSIC
280	28 1:49:18 6:25 MENINGOCOCCAL	
281	CAM ATKINSON	ATKINSON: The last vaccine we are going to discuss is meningococcal vaccine. We mention it briefly since there are a few indications for its use noted on the Adult Immunization Schedule.
282		Meningococcal disease is a serious, potentially life threatening infection, caused by Neisseria meningitidis. [SI]

283	SS , MENINGOCOCCAL DISEASE IN THE U.S. ADULT03 LIVE3 P16	Each year **two to three thousand cases** of meningococcal disease occur in the U.S., which translates to a rate of about **one case per 100 thousand population**. The **highest age specific disease rates are among infants and young children**, but, in the past few years, the rate of meningococcal disease among adolescents and young adults 15 to 24 years of age has increased.
284		Most of the meningococcal disease worldwide is caused by five serogroups of Neisseria meningitidis: serogroups A, B, C, Y, and W-135. Most disease, about eighty percent, in the U.S. is caused by **serogroups B, C and Y.** [SO]
285	CAM	Approximately 10 to 15 percent of children and young adults who get the disease will die. Among those infected who live, another 10 percent lose their arms or legs, or have neurologic sequela. [PAUSE]
286		Anyone can get meningococcal disease, but it's most common in infants less than one year of age, and in people with certain medical conditions. College freshmen, particularly those who live in dormitories, are at a slightly higher risk of meningococcal disease than are other people in their age group. This is probably related to the transmission being facilitated in a crowded dormitory-style environment.
287		The infection is transmitted from person to person through close contact with respiratory or throat secretions. Transmission can occur through coughing, kissing, or sharing a glass. People who live in close quarters with an infected person are at greater risk. [SI]

288	SS , MENINGOCOCCAL VACCINE ADULT03 LIVE3 P17	Meningococcal vaccine, **Menomune,** is manufactured by **Aventis Pasteur**. It is an inactivated **quadrivalent polysaccharide vaccine**. Meningococcal vaccine protects against four serogroups: **A, C, Y, and W-135**. There is currently no licensed vaccine that protects against serogroup B, which accounts for about a third of cases in the U.S. **The recommended vaccination schedule is one dose with revaccination in five years if the risk remains high**. [SO]
289	CAM	Meningococcal vaccine is recommended for persons at increased risk of exposure to meningococcus or at increased risk of meningococcal invasive disease. [SI]
290	SS , MENINGOCOCCAL VACCINE RECOMMENDATIONS ADULT03 LIVE3 P18	These groups include **military personnel**; persons who might be affected during an **outbreak** of certain serotypes, especially serotype C; **some international travelers**, in particular those traveling to sub-Saharan Africa, or attending the Hajj in Saudi Arabia; and people with **functional or anatomic asplenia**. [SC]
291	SS , MENINGOCOCCAL VACCINE RECOMMENDATIONS ADULT03 LIVE3 P19	The vaccine is recommended for people with a **terminal complement component deficiency**, a condition which increases the risk of invasive meningococcal disease. Finally, the vaccine may be administered to certain **laboratory workers** who are routinely exposed to the meningococcal bacteria.
292	SS , MENINGOCOCCAL VACCINE FOR COLLEGE STUDENTS ADULT03 LIVE3 P20	The vaccine is **NOT recommended routinely for all college students**. However, ACIP does recommend that health care providers **inform college freshmen**, especially those who live in dormitories, **about meningococcal disease and benefits of vaccination**. If college freshmen want to reduce the risk for meningococcal disease, health care providers should either **administer the vaccine or direct the student to a site where the vaccine is available**. [SO]
293	CAM	More than half of those who are vaccinated with meningococcal vaccine experience no side effects. Among those who do have a reaction, most have only a mild reaction. [SI]

294	SS , ADVERSE REACTIONS ADULT03 LIVE3 P21	**Local reactions**, like pain and redness at the injection site, are reported by up to **forty percent** of those vaccinated. Approximately **two percent** of those vaccinated experience a **fever** that lasts one to two days. **Serious reactions**, such as an allergic reaction, are **not common**. [SC]
295	SS , CONTRAINDICATIONS AND PRECAUTIONS ADULT03 LIVE3 P22	People should NOT be vaccinated with meningococcal vaccine if they have ever had **a serious allergic reaction to a vaccine component of following a prior dose of vaccine**. Persons with **moderate or severe acute illness** should not be vaccinated until the illness has improved. Since meningococcal vaccine is an inactivated vaccine, it can be administered to pregnant women, when indicated. [SO] [BIG PAUSE]
296	CAM DELETE PHONE NUMBERS FROM VT	Our live question and answer segment will begin in about 7 minutes. If you have questions, you can begin calling us right now. Here are our telephone numbers again. [SI]
297	SS , VOICE ADULT03 LIVE3 P23	For regular voice calls, the number is **800-793-8598**. From outside the U.S., the number is **404-639-0180**. [SC]
298	SS , FAX ADULT03 LIVE3 P24	To fax us a question or comment, please call **800-553-6323**. For international viewers, the FAX number is **404-639-0181**. [SC]
299	SS , TTY ADULT03 LIVE3 P25	Our TTY number is **800-815-8152**. The international TTY number is **404-639-0182**. [SC]
300	SS , EMAIL ADULT03 LIVE3 P26	If you would like to Email your question to us, the address is **n-i-p info at c-d-c dot g-o-v**. Please type **"broadcast question" in the subject line** of the Email so we can identify questions related to this program. [SO] [BIG PAUSE].
301	CAM	In this program we have discussed several vaccines that are recommended for the adult population. But not one case of influenza or hepatitis B will be prevented if the vaccines just sit in your refrigerator.

302	ROLLCUE	Effective strategies are needed to get the vaccine from your refrigerator into your patients. Here is Dr. Serigne Ndiaye from the National Immunization Program to review interventions that have been shown to improve immunization rates at the local level.
303	29 1:55:43 08:51 NDIAYE PACKAGE, WHAT WORKS PROMO VT-A, Cut 11 SOT	OC: The CD is free, compliments of CDC and ATPM.
304	30 2:04:34 18:56 QUESTIONS & ANSWERS	
305	CAM CHANGE SPEAKERS DELETE Q&A FROM VT NEED PICKUP TO RESOURCES	GOOD: [PAUSE BEFORE RESPONDING] Now it’s time for us to take your questions on the air. Please limit your questions to those that pertain to this session. While we’re waiting for calls, here’s a question that we’re frequently asked:
306	CAM CG “CALLER FROM (STATE). LOWER THIRD	AD LIB CALLS AND FAXES
307	CAM	GOOD: That's all the time we have for questions. Thanks for the calls and FAXes. Also, compilations of all the questions we receive on the broadcast will be available on our broadcast resources website. [PAUSE]
308	31 2:23:30 5:05 END HOUSEKEEPING	
309	CAM	If you wish to receive continuing education credit for today’s program, you must register and complete an evaluation.
310		CME, CNE, CEU, and CECH for health educators are available for this program through the CDC ATSDR Continuing Education and Training online system. For those who do not wish to receive CE credit a certificate of attendance will be awarded to participants who register and complete the course evaluation.

311		Continuing education for pharmacists is now available through our collaboration with the American Pharmacists Association. [SI]
312	SS , CONTINUING EDUCATION FOR PHARMACISTS ADULT03 LIVE3 P27	Pharmacists may receive 2 point 5 hours of continuing education credit at no charge by visiting, **w – w – w – dot – pharmacist – dot – com – slash – live – c - e.** Be certain to jot down the Verification Code you will see in a moment, since you will need this to gain access to the CE credit. [SO]
313	CAM	We want EVERYONE to register and complete the course evaluation, even if you are not taking the program for continuing education credit. To receive continuing education for this program you need to know two important pieces of information. The first is the course number. PLEASE NOTE pharmacists do not need this number. [SI]
314	SS , COURSE NUMBERS ADULT03 LIVE3 P28	The **course number** for this satellite broadcast is **S – B - zero 1 – 2 - 7.** The course number for this webcast is **W – C - zero zero 2 - 7.** You will need one of these course numbers to identify the correct evaluation in the CDC ATSDR online system, so please write it down now. [PAUSE 5 SECONDS) [SC]
315	SS , VERIFICATION CODE ADULT03 LIVE3 P29	The second critical item is the course **verification code.** Everyone, INCLUDING pharmacists, must have this verification code. The verification code is **L- B- ZERO- five– THREE- F. That's L as in Lima, B as in Bravo ZERO- five– THREE- F as in Foxtrot.** The code must be entered in UPPER CASE. So please write it down, and enter it in upper case letters when prompted. [SC]
316	SS , CONTINUING EDUCATION CREDIT	The evaluation for this program will be active on the online system for 30 days after the live broadcast. **Registration and evaluation must be completed no later than July 28** to receive CE credit. [SO]

317	CAM	Let's talk about using the CDC ATSDR online registration and evaluation system for a moment. Many of you are already familiar with our online system. If you have not used it before, you can receive instructions through our FAX BACK system. [SI]
318	SS , INSTRUCTIONS FOR USING THE ONLINE SYSTEM ADULT03 LIVE3 P30	Call our toll free number using a touch tone telephone. The number is **8- 8- 8 CDC-FAXX**. When prompted for a document number, request **document number 1-3-0- 0-1-2**. Then enter your fax number. The document will be faxed to you in just a few minutes. [SC]
319	SS , CDC/ATSDR TRAINING WEBSITE ADULT03 LIVE3 P31	Here is the address for the **CDC ATSDR training and continuing education online system: w-w-w- dot p-h-p-p-o dot c-d-c dot g-o-v slash p-h-t-n online**. When you get to the website, an extensive help function can also assist you in the registration process. [SO]
320	CAM	Rather than go through all the details of using the online system, you should use the instructions on the website, or order the instructions from our fax back system.
321	SS , CDC/ATSDR TRAINING.ASSISTANCE ADULT03 LIVE3 P32	In addition to the online help function, you can receive assistance by telephone. If you have any problems with the online system, you can call us toll free at **800-41- TRAIN**. You can also call us at **404-639- 1292**. CE unit personnel are available **Monday through Friday from 8 am until 4:30 pm Eastern Time**.
322		You can also receive assistance by **Email**. Our address is **C- E- at C-D-C DOT G-O-V**. The continuing education staff will be happy to assist you with the login and registration process [SO] [PAUSE]
323	32 2:28:35 2:06 END RESOURCES	
324	CAM PICKUP FOR TAPE FROM END OF NDIAYE PACKAGE	GOOD: This brings us to the close of this broadcast of Adult Immunization Update. We hope the information we have provided will help improve adult immunization levels in your practice. [SI]

325	SS , ADULT IMMUNIZATION UPDATE RESOURCE WEBPAGE ADULT03 LIVE3 P33	Throughout this program we have mentioned several adult immunization resources. You will find links to these and much more on the National Immunization Program website at **w-w-w dot c-d-c dot g-o-v slash n-i-p. Go to the page called Broadcast Updates and Resources.** [SC]
326	SS , HOTLINE ADULT03 LIVE3 P34	If you have questions that we did not answer on the air you can call the **National Immunization Information Hotlin**e. You can reach the Hotline **toll free** at **800- 232- 2522**. The Hotline is staffed from **8 AM until 11 PM eastern time Monday through Friday**. [SC]
327	SS , EMAIL ADULT03 LIVE3 P35	You can also use the Internet to E-mail questions, comments, or requests to the National Immunization Program. Our Email address is **n-i-p- info at c-d-c- dot g-o-v**. [SC]
328	SS , PHTN WEB SITE ADULT03 LIVE3 P36	Finally, if you would like to find out more about upcoming Public Health Training Network courses, visit the PHTN website at **w-w-w- dot- p-h-p-p-o dot c-d-c- dot- g-o-v slash p-h-t-n.** [SO] [PAUSE]
329	CAM ROLLCUE	Thank you for joining us today. Be sure to join us on August 21 for the Immunization Update. Goodbye
330	33 2:30:02 0:30 CREDITS	
331	SS , PRODUCED FOR ADULT03 LIVE3 P37	
332	SS , PRODUCED BY ADULT03 LIVE3 P38	
333	SS , CO-SPONSOR ADULT03 LIVE3 P39	
334	SS , GOOD DAY FROM ATLANTA ADULT03 LIVE3 P40	

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